# **Project Location**

The host agency for the 2008-2010 Puerto Rico Coral Management Fellowship is the PR Department of Natural and Environmental Resources (DNER) under its Bureau of Coasts, Reserves and Refuges (BCRR). DNER Building facility is located at Cruz A. Matos Building, State Road #8838, km 6.3, Sector El Cinco, Río Piedras, PR.

Considered the greater of the smaller Antilles, Puerto Rico has a diversity of unique ecosystems including coral reefs. With an approximate population of four (4) million people most of the natural resources has been jeopardize due to housing and industrial development, road construction and new and innovative complex infrastructure. Surrounding PR main island, to the east are two inhabited islands (Culebra and Vieques), three uninhabited islands (Mona, Monito, Desecheo) to the west and one uninhabited island to the south (Caja de Muertos).

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# Program/Agency Background

DNER was created on June 20, 1972. Its mission is to protect natural resources to guarantee their enjoyment by this generation and future ones. The agency administers more than 20 laws and regulations, including the Coral Reef Protection, Conservation and Management Act, Number 147 of July 15, 1999.

Among the goals of BCRR are included but not limited to the administration and management of marine and natural reserves, wildlife refuges and marine protect areas to conserve important marine and terrestrial ecosystems under its jurisdiction. Three main divisions compose the overall of the BCRR (Coastal Management Division, Natural Reserves and Wildlife Refuges Division and Jobos Bay Natural Estuary Research Reserve).

The Puerto Rico Coral Reef Program (PRCRP) administers coral reef management and monitoring programs. This program oversees the development and implementation of the Local Action Strategies (LAS), which are targeted plans of action for the protection of Puerto Rico's coral reefs, as well as the development of an island -wide long-term coral reef management plan. As a part of the LAS effort several priority stressors on Puerto Rico's coral reefs were identified: overfishing, recreational overuse, lack of awareness and land based sources of pollution. The PRCRP will focus its land based source of pollution management efforts on the reduction of erosion and sedimentation control in natural and marine reserves, in particular many of these efforts will be focused in the Guánica State Forest. Land based sources of pollution will remain as one of our most important programmatic objectives into this coral reef management fellowship scope of work. Another high-priority objective of the PRCRP program is the development and revision of management plans for marine protected areas (MPAs) in Puerto Rico.

# **Project Goals and Objectives**

The goal of this fellowship assignment is to support the NOAA and DNER on several tasks. DNER is working in partnership with NOAA and the Center for Watershed Protection, a non-governmental organization which provides technical assistance for effective watershed management, on several projects to reduce land-based sources of pollution in Puerto Rico. Among the activities included are watershed activities in the Guánica State Forest, the Caguas-Loiza watershed, the Jobos Bay National Estuarine Research Reserve and La Parguera Natural Reserve.

#### Project responsibilities:

- 1. Represent DNER and provide assistance to the Center for the Watershed Protection on all activities related to the watershed protection of the above mentioned watersheds
- 2. Represent DNER and participate in meetings and workshops for the development of the Management Plan for La Parguera Natural Reserve
- 3. To collaborate on education and outreach activities that will be produced for the Guánica State Forest visitor's center

- 4. To promote the active participation of all relevant partners during workshops and seminars related to the Coral Reef Management Program, as appropriate
- 5. To strengthen communication with all partners and stakeholders in the above mentioned watershed efforts
- 6. To provide general support as needed for activities and efforts of the Puerto Rico DNER Coral Reef Committee and Coral Reef Program Initiative

# **Project Description**

Below is a description of the overall project, with general milestones and outcomes. The fellow will be integrated into BCRR and will network with different DNER units and partner organizations to perform the identified duties. The fellow will be involved in each of these tasks, and some of them will be accomplished concurrently.

#### Fellow Member Introduction

The fellow will be introduced to the staff and management of BCRR, DNER administration-staff members, as well as to partner agencies. The fellow will review background information regarding Puerto Rico's coral reef initiative and other coastal management issues. The fellow will participate with program staff members in field visits, interagency meetings, and outreach activities. After participating in these activities, the fellow, with input from the mentor, will write a project work plan within the first month of the fellowship that will be reviewed and revised after the first year of the fellowship program.

#### Outcomes:

- Become familiar with DNER staff, operations, regional offices, outside divisions of the central office and resources of state coastal program
- Integration into BCRR and clarification of role and responsibilities in project
- Development of a project work plan
- Comply with DNER administrative procedures

#### Watershed Project Coordination

The fellow will coordinate meetings with specialists to discuss and review the different planning processes for the Guánica State Forest, Caguas-Loiza and Jobos Bay watersheds. The fellow will review existing management plans, water quality reports, watershed studies, available geographic information data (GIS), including aerial and satellite photos,

benthic maps and any available reports that may serve as tools to provide accurate and effective information to support analysis of the inventoried areas.

DNER will work closely with the Center for Watershed Protection (CWP). Founded in 1992, the Center for Watershed Protection is a non-profit 501(c)3 corporation that provides local governments, activists, and watershed organizations around the country with the technical tools for protecting some of the nation's most precious natural resources: our streams, lakes and rivers. The Center has developed and disseminated a multi-disciplinary strategy to watershed protection that encompasses watershed planning, watershed restoration, stormwater management, watershed research, better site design, education and outreach, and watershed training.

#### Outcomes:

- Work with municipalities comprising the Guánica State Forest and Caguas-Loiza watersheds to schedule meetings and site visits
- Assist in the development of a municipal ordinance to protect the Caguas-Loiza Watershed that can also serve as a model for other watershed areas.
- The fellow will help support organize meetings with all appropriate parties involved in developing the watershed plan for the Guánica State Forest, including but not limited to contractors, stakeholders, nongovernmental organizations, academics, community groups, DNER, NOAA and Center for Watershed Protection staff members. The fellow will work closely with DNER administrative staff for the PRCRP to get approval for these meetings.
- Participate in meetings to support the joint DNER-NOAA-USDA Conservation Effects Assessment Project in the Jobos Bay watershed and provide assistance on this project as appropriate.

#### Support for Puerto Rico Coral Reef Initiative

The fellow will participate in activities related to general support for the coordination of the DNER coral reef program under the following tasks: participation with updating the coral reef webpage, participation in the development of a management plan for La Parguera Natural Reserve and help support the educational and outreach materials developed for the Guánica State Forest watershed plan.

### Outcomes:

- Update the DNER PR Coral Reef Webpage (final reports of tasks and project under the Conservation and Management grant, Ecosystem Monitoring, or any other information related to the program)
- Participate in meetings and workshops for the development of the Management Plan for La Parguera Natural Reserve

- Develop education and outreach materials that will be produced for the Guánica State Forest visitor's center
- Provide assistance with the coordination of related workshops

# Fellow Mentoring

The fellow will be mentored by Ms. Mayra T. García, Assistant Administrator for the Living Resources Area. She will be the point of contact for administrative questions and project guidance. Ms. García and the fellow will communicate regularly with NOAA fellowship mentoring program advisors to review the work plan and timelines to evaluate progress.

The fellow will be considered part of BCRR and will be expected to attend staff meetings and participate in program discussions. The fellow will be provided with opportunities to join staff members on field visits and internal and external meetings. The fellow will have ample opportunities to meet coral reef and MPA management professionals within all levels of government, non-profit groups, and academic institutions. This project will provide an exciting opportunity to learn about aspects of an island coral reef management program and a wide range of coral reef management issues.

The fellow will receive assistance in identifying key individuals with whom to meet and important sources of background information. He or she will be provided with the necessary resources to carry out the project.

# **Project Partners**

As a part of BCRR, the fellow will actively work with other agency staff members, community organizations, government agencies, universities, and nongovernmental organizations.

Potential partners include the following:

- Other divisions of the Puerto Rico Department of Natural and Environmental Resources
- Puerto Rico Environmental Protection Agency (EPA)
- Puerto Rico Environmental Quality Board (EQB)
- Puerto Rico Planning Board
- Natural Resources Conservation Service (NRCS)
- National Oceanic and Atmospheric Administration (NOAA)
- Center for Watershed Protection (CWP)

- U.S. Fish and Wildlife Service (USFWS)
- US Army Corps of Engineers (COE)
- PR local municipalities (Guánica, Caguas, Loiza and others)
- Nongovernmental and nonprofit organizations
- Private consultants
- University of Puerto Rico
- Other public and private universities

# In Kind Support

The fellow will have access to all the amenities and services of the agency staff, including office space and equipment, personal computer, telephone, fax, and e-mail upon availability. The fellow will be also entitled to use government official vehicles, travel in DNER planes and boats for official travels within PR jurisdiction by previous request authorization of the immediate supervisor.

In addition, the fellowship mentor program will received from DNER support for materials, software, printing, photocopying, mailing, and incidental costs for project products upon availability of funds.

# Eligibility Requirements

- Bachelor's degree in marine resources management, marine science, watershed management, watershed planning, or related area of study with 2 to 4 years experience OR master's degree in resource management planning, marine science or related area of study with 2 years experience.
- Proficient in Spanish and English
- Valid driver's license

# Desired Background and Skill Sets

- Demonstrated oral, written, and interpersonal communication skills
- A proven ability to be well-organized and able to manage and prioritize multiple tasks
- Experience in watershed management and planning
- Experience in outreach and education
- Experience in grants management
- Experience working on coral reefs and in tropical climates
- Experience working on management plan development and with general marine resource management issues

- Public speaking, events planning, and meeting facilitation experience
- Ability to work independently
- Creative, flexible, adaptable
- Experience living and working in another culture or in an island community
- Experience working with different user groups
- Experience in natural resource planning and policy implementation
- Project management experience
- Proficient with Microsoft Office
- SCUBA Diving Certification